

Title (en)
Dispensing apparatus

Title (de)
Ausgabevorrichtung

Title (fr)
Dispositif de distribution

Publication
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Application
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Priority

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Abstract (en)

A pump dispenser (101) connected to a container (107) of liquid has a first piston (3) reciprocatable in a first cylinder (5) for pumping a quantity of liquid at each depression of the piston. A valve member (8) received within a channel in the first piston is spring biased into a position in which a dispensing outlet (19) is normally closed and is movable to release liquid in response to excess liquid pressure in the first chamber. A cylindrical extension (11) to the valve member defines a conduit (60) communicating with liquid in the container and is separable from the valve member to open a liquid inlet port (105) for recharging the first chamber. A second piston (39) is movable in tandem with the first piston and co-operates with a second cylinder (41) to provide suction on a return stroke of the pistons which is utilised to remove residual liquid from a dispensing channel (7) delivering pumped liquid to a nozzle (32). Residual liquid collected in the second chamber is returned to the container during the next subsequent actuating stroke of the pistons. An actuator (20) mounted on the first piston communicates lost motion to the second piston and provides valve action for connecting the second cylinder to the dispensing channel only during the return stroke. The dispenser is particularly useful for water borne liquid products because its self-cleaning action prevents clogging. <IMAGE>

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CA 2182678 A1 19950810; CN 1142806 A 19970212; DE 69410825 D1 19980709; DE 69410825 T2 19981001; DE 69418907 D1 19990708;
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ES 2132994 T3 19990816; JP H09508340 A 19970826; KR 970700625 A 19970212; RU 2126353 C1 19990220; US 5458289 A 19951017;
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